Computing Progression of Skills				
Threshold Concept	**EYFS**	**Milestone 1 (Years 1 and 2)**	**Milestone 2 (Years 3 and 4)**	**Milestone 3 (Years 5 and 6)**
Online Safety	Use project evolve to develop understanding of their online presence through the following strands: Self-image and identity, online relationships, online reputation, online bullying, managing online information, health wellbeing and lifestyle, privacy and security, copyright and ownership.			
Computing Systems & Networks	Recognise technology in school and at home. Understand what we use technology for and how to use it safely	Technology around us -Recognising technology in school and using it responsibly. Information technology around us – Identifying IT and how its responsible use improves our world in school and beyond	Connecting computers – identifying that digital devices have inputs, processes and outputs and how devices can be connected to make networks The internet – recognising the internet as a network of networks including the WWW, and why we should evaluate online content	Systems and searching – recognising IT systems in the world and how some can enable searching on the internet Communication and collaboration – exploring how data is transferred by working collaboratively online
Creating Media	Use apps to create simple representation of pictures, text and animation Use digital technology to explore photography and sound recording.	Digital painting – choosing appropriate tools in a program to create art and making comparisons with working non-digitally. Digital writing – using a computer to create and format text, before comparing to writing non-digitally Digital photography – capturing and changing digital photographs for different purposes Digital music – using a computer as a tool to explore rhythms and melodies, before creating a musical composition	Stop-frame animation – capturing and editing digital still images to produce a stop-frame animation that tells a story Desktop publishing – creating documents by modifying text, images and page layouts for a specified purpose Audio production – capturing and editing audio to produce a podcase, ensuring that copyright is considered Photo editing – manipulating digital images and reflecting on the impact of changes and whether the required purpose is fulfilled	Video production – planning, capturing and editing video to produce a short film Introduction to vector graphics – creating images in a drawing program by using layers and groups of objects Webpage creation – designing and creating webpages, giving consideration to copyright, aesthetics and navigation 3D modelling – planning, developing and evaluating 3D computer models of physical objects
Data & Information	Understand that objects can be grouped in different ways. Use talk to organise thinking.	Grouping data – exploring object labels, then using them to sort and group objects by properties. Pictograms – collecting data in tally charts and using attributes to organise and present data on a computer	Branching databases – building and using branching databases to group objects using yes/no questions Data logging – recognising how and why data is collected over time, before using data loggers to carry out an investigation	Flat-file databases – using a database to order data and create charts to answer questions Introduction to spreadsheets – answering questions by using spreadsheets to organise and calculate data
Programming	Talk about and identify patterns. Extend and create patterns. Notice and correct errors in patterns. Explore floor robots through play scenarios and begin to explore simple programming	Moving a robot – writing short algorithms and programs for floor robots and predicting program outcomes Programming animations – Designing and programming the movement of a character on screen to tell stories Robot algorithms – creating and debugging programs and using logical reasoning to make predictions Programming quizzes – designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz	Sequencing sounds – creating sequences in a block-based programming language to make music. Events and actions in programs – writing algorithms and programs that use a range of events to trigger sequences of actions Repetition in shapes – using a text-based language to explore count-controlled loops when drawing shapes Repetition in games – using a block-based programming language to explore count-controlled and infinite loops when creating a game	Selection in physical computing – exploring conditions and selection using a programmable microcontroller Selection in quizzes – exploring selection in programming to design and code an interactive quiz Variables in games – exploring variables when designing and coding a game Sensing movement – designing and coding a project that captures inputs from a physical device.


Stanley Primary School
Learning Together